Table E-6. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
1/ Discharge Event	On Permit Effective Date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
1/Quarter	On Permit Effective Date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
1 / Year	On Permit Effective Date	January 1 through December 31	February 1

4. Reporting Protocols. The Discharger shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in Part 136.

5. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

   a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

   b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

      For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+ a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

   c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

   d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

6. Compliance Determination. Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment A of this Order. For purposes of reporting and administrative

enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

7. Multiple Sample Data. When determining compliance with an AMEL or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

   a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

   b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

8. The Discharger shall submit SMRs in accordance with the following requirements:

   a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

   b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

   c. SMRs must be submitted to the Regional Water Board, signed and certified as required in Item X.B.1. If a disk that contains a document that is 10MB or larger is required, submit it to the address listed below:

California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

C. Other Reports

1. Within 90 days of the effective date of this permit, the Discharger is required to submit the following to the Regional Water Board:

   a. Initial Investigation TRE workplan

   b. Updated SWPPP

   c. Updated BMPP

   d. Updated SCP

2. Within **20 months** of the effective date of the Harbor Toxics TMDL, TMDL **and annually thereafter,** the Discharger or the Responsible Parties shall submit annual implementation reports to the Regional Water Board. The reports shall describe the measures implemented and the progress achieved toward meeting the assigned WLAs and LAs.

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Discharger.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the Facility.

Table F-1. Facility Information

WDID	4B192023002
Discharger	Ultramar, Inc. (a Valero Energy Corporation Company)
Name of Facility	Wilmington Marine Terminal, Berth 164
Facility Address	961 La Paloma Avenue
	Wilmington, CA 90744
	Los Angeles County
Facility Contact, Title and Phone	Shannon Fowler, Associate Environmental Scientist, (562) 495-5490
Authorized Person to Sign and Submit Reports	Mark Phair, Vice President & General Manager
Mailing Address	P. O. Box 93102, Long Beach, CA 90809
Billing Address	Same as above
Type of Facility	Industrial (SIC code: 4463)
Major or Minor Facility	Minor
Threat to Water Quality	3
Complexity	C
Pretreatment Program	No
Reclamation Requirements	No
Facility Permitted Flow	001- 0.48 Million Gallons per Day (MGD)
	002- 0.48 MGD
	003- 0.72 MGD
	004- 1.02 MGD
Facility Design Flow	Not Applicable
Watershed	Dominguez Channel and Los Angeles/Long Beach Harbors Watershed
Receiving Water	Los Angeles Inner Harbor
Receiving Water Type	Coastal Surface Water

A. Ultramar, Incorporated, a Valero Energy Corporation Company (hereinafter Discharger or Ultramar) leases and operates the Wilmington Marine Terminal, Berth 164 (hereinafter Facility), a bulk storage and distribution facility that receives and ships

intermediates, feedstock, and refined products by pipeline, marine vessels, and trucks. The Facility is located at 961 La Paloma Avenue, Wilmington, California.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. The Facility discharges wastewater (storm water and hydrostatic test water) to the Los Angeles Inner Harbor, Slip No. 1 (referred to as Battery 1 by the Discharger), a water of the United States, both directly and via a storm drain and is currently regulated by Order R4-2007-0039 which was adopted on August 9, 2007, and expired on July 10, 2012. The terms and conditions of the current Order have been administratively extended as per 40 Code Federal Regulations (CFR) section 122.6 and remain in effect until new Waste Discharge Requirements and an NPDES permit are adopted pursuant to this Order.

C. The Discharger filed a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on January 13, 2012. Supplemental information were received February 19, 2013, May 8, 2013, and June 5, 2013. Tetra Tech staff (USEPA Contractor) on behalf of Regional Water Board conducted a site visit on December 13, 2011, to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

Ultramar, Inc. leases and operates the Wilmington Marine Terminal, Berth 164. The Facility is located on a property known as Mormon Island. The Facility serves as a bulk storage and distribution facility for Ultramar's Wilmington Refinery, and is connected to the Refinery by pipelines. The Facility receives and ships intermediates, feedstock and refined products by pipeline, marine vessels, and trucks. The Facility includes a dock, two separate unloading rack areas, a fired heater area, a warehouse, control house, offices, and a five-parcel tank farm. Each tank farm is surrounded by a 12-foot high concrete containment wall. There are 15 petroleum storage tanks and 4 slop oil storage tanks. The Facility occupies approximately 8 acres, most of which is unpaved. Attachment C depicts the major structures of the Facility.

The Facility borders Wickland Oil Company's marine terminal to the north and U.S. Borax's marine terminal to the south. Parcel 1 is located west of La Paloma Avenue. Parcel 1 is approximately 1.2 acres, consisting of three oil storage tanks and two slop tanks. The oil storage tank volumes range in capacity from approximately 11,000 barrels to 40,000 barrels. Parcel 2 is located west of La Paloma Avenue, and occupies 0.7 acres, consisting of two oil storage tanks. The tank volumes are approximately 30,000 barrels. Parcel 3 is located east of La Paloma Avenue and south of Hermosa Street, with total area of approximately 2 acres, consisting of four oil storage tanks and two slop oil tanks. The oil storage tank volumes are approximately 67,000 barrels. Parcels 4 and 5 are located east of La Paloma Avenue and north of Hermosa Street, with total area of approximately 3.2 acres,

consisting of 6 oil storage tanks. The tank volumes range in capacity from approximately 42,000 barrels to 120,000 barrels.

A. Description of Wastewater Treatment or Controls

The treatment systems consist of oil-water separators. The separators are designed to remove sediment, petroleum compounds and grease picked-up by the storm water runoff. Parcels 1 and 2 share an oil-water separator, Parcel 3 has a dedicated oil-water separator and Parcels 4 and 5 have a shared oil-water separator. Storm water at the terminal is mostly accumulated within the tank farm containment walls and conveyed to the storm water management system. Storm water is discharged through Discharge Points 001, 002, and 003 (see table on cover page) to the Los Angeles Inner Harbor, Battery 1, a water of the United States, within a coastal Watershed, via a storm drain on La Paloma Avenue.

Hydrocarbons which are collected in the sumps are transferred by level-activated pumps through a system of pipes to the primary slop oil tanks in Parcel 3 (e.g., Tanks 99-TK-1 and 99-TK-2). These tanks normally receive all of the slop oil in the system and are interconnected to fill simultaneously. Oil and rainwater in these tanks is transferred by pipe or vacuum truck to secondary slop oil tanks in Parcel 1 (e.g., Tank 99-TK-7301 and Tank 99-TK-7302). The secondary tanks augment overall system capacity, and provide additional capacity during major storms. The slop oil is then transferred via pipeline to the Ultramar's Wilmington Refinery slop oil system. At the refinery, slop oil is recycled and processed for product recovery. Storm water is discharged from the oil-water separators at a controlled rate, after testing determines that the storm water meets permit effluent limitations. Discharge volumes for each outfall are calculated based on the surface area of the tank farm and the amount of precipitation measured at the site. Estimates of the areas of impervious surfaces drained to each outfall, and an estimate of the total surface area drained by the outfall, are as follows:

Discharge Point	Area of Impervious Surface	Total Area Drained
001	0.8 acres	1.9 acres
002	0.7 acres	2 acres
003	1.5 acres	3.2 acres

The Discharger indicated in EPA Form 2E that the maximum daily discharge flow rate of storm water is 0.72 MGD at Discharge Point 003 based on three storm events (January 2011, March 2011, and December 2011). Supplemental information submitted by the Discharger on February 19, 2013, indicated that the estimated storm water discharge flow rate based on the "Total Area Drained" is 0.48 MGD at each Discharge Point 001 and 002.

In addition to storm water, hydrostatic test water is generated from integrity testing of new or rehabilitated pipes and petroleum storage tanks and discharged from the Facility. During repair and maintenance activities, hydrostatic test water is stored in the storage tanks prior to discharge. Untreated hydrostatic test water is discharged using

temporary hoses from each parcel of the Facility directly through Discharge Point 004 (see table on cover page) into the Los Angeles Inner Harbor, Battery 1. For hydrostatic test water, the discharge flow rate is 1.02 MGD based on Order No. R4-2007-0039. Order No. R4-2007-0039 included only hydrostatic test water flow rate.

During the discharge of storm water, hydrostatic test water is not discharged through the discharge points.

B. Discharge Points and Receiving Waters

In Parcel 1, sloping ground directs the storm water to a drain and sump. From the sump in Parcel 1, storm water is then pumped to the oil-water separator. In Parcel 2, sloping ground and one trench directs storm water to the same oil-water separator. Discharge Point 001 is located after the final chamber of this oil water separator and discharges into the storm drain on La Paloma Avenue (Latitude 33º, 45´, 33" North, Longitude 118º, 16´, 02" West), and into the Battery 1, Los Angeles Inner Harbor.

In Parcel 3, storm water drains through a network of area drains. Each tank has a separate, limited containment wall of approximately 2 feet high. Separate drains in each area connect to the oil-water separator located in the northwest corner. As of 2006, the facility had installed permanent piping, but is currently using a portable pump and temporary piping to pump the treated storm water into the Slop Tank 99-TK-1 in Parcel 3 and then to the Refinery for treatment before being discharged to the Los Angeles County Sanitation Districts. The Facility plans to use the permanent pipe system in the future. Discharge Point 002 is located after the final chamber of this oil water separator and discharges into the storm drain on La Paloma Avenue (Latitude 33º, 45´, 33" North, Longitude 118º, 15´, 57" West), and subsequently into the Battery 1, Los Angeles Inner Harbor.

As of 2006, the Facility ceased discharges from Discharge Points 001 and 002. Storm water from Parcels 1, 2 and 3 is pumped to Slop Tank 99-TK-1 in Parcel 3, and then directed to the Ultramar's Wilmington Refinery for treatment prior to being discharged to the sanitary sewer (Los Angeles County Sanitation Districts). However, the Discharger would like to retain the authority to continue discharges of storm water through Discharge Points 001 (Latitude 33º, 45´, 33" North, Longitude 118º, 16´, 02" West), and 002 (Latitude 33º, 45´, 33" North, Longitude 118º, 15´, 57" West), if necessary, and if all applicable effluent limitations are met. There have been no discharges of storm water through Discharge Points 001 and 002 during the existing permit term.

In Parcels 4 and 5, storm water accumulates into the storm drains which all connect to the oil-water separator on the west side of the parcel. Storm water from Parcels 4 and 5 is discharged from the oil-water separator through Discharge Point 003 to the La Paloma Avenue storm drain (Latitude 33º, 45´, 36" North, Longitude 118º, 15´, 55" West), which then discharges into Battery 1, Los Angeles Inner Harbor.

As stated previously, untreated hydrostatic test water is discharged using temporary hoses from each parcel of the Facility directly through Discharge Point 004 (Latitude

33º, 45´, 31" North, Longitude 118º, 16´, 04" West) into Battery 1, Los Angeles Inner Harbor. There have been no discharges of hydrostatic test water through Discharge Point 004 during the permit term.

Ultramar's current procedure is to hold hydrostatic test water and/or stormwater collected in the sumps within the Marine Terminal parcels and collect water samples for laboratory analyses. The water in the sumps will continue to be held on site pending receipt of the laboratory analytical results. If laboratory analytical results indicate that the discharge meets the effluent limitations, Ultramar will proceed to discharge to the storm drain system and perform additional sampling/monitoring as specified in the Monitoring and Reporting Program. If the analytical results do not meet the effluent limitations, the water is transferred via vacuum truck to the Refinery for treatment prior to discharge to the sanitary sewer. In addition, Ultramar proposes to implement an annual cleaning of each sump within the Marine Terminal parcels.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

Effluent limitations contained in the existing Order for discharges from Discharge Point 003 (Monitoring Location EFF-003) are summarized in Table F-2, below. There were nine discharge events through Discharge Point 003 during the term of the existing permit The Facility did not have any discharges of storm water from Discharge Points 001 or 002, or discharges of hydrostatic test water from Discharge Point 004 during the term of the existing permit; therefore, monitoring data are unavailable for these locations.

Table F-2. Historic Effluent Limitations and SMR Data – Discharge Point 003

Parameter	Units	Maximum Daily Effluent Limitations	Range of Reported Concentrations
Oil and Grease	mg/L	15	ND – 1
pH	S.U.	6.5 – 8.5	7.39 – 8.89
Temperature	°F	86	51 – 67.1
Biochemical Oxygen Demand (BOD)	mg/L	No limit	0.81 - 2.6
Total Suspended Solids	mg/L	No limit	1 - 49
Total Petroleum Hydrocarbons (TPH)	µg/L	No limit	0.34 – 0.38
Settleable Solids	ml/L	No limit	<0.1 - 0.2
Turbidity	NTU	No limit	6.7 - 55
Sulfide	mg/L	No limit	All are ND
Arsenic, Total Recoverable	µg/L	63.2	0.94 – 5.3
Copper, Total Recoverable	µg/L	5.8	12 – 45.3
Lead, Total Recoverable	µg/L	15.7	2.9 – 18
Mercury, Total Recoverable	µg/L	0.10	All are ND
Nickel, Total Recoverable	µg/L	13.5	0.85 – 5.9
Silver, Total Recoverable	µg/L	2.2	All are ND
Thallium, Total Recoverable	µg/L	12.6	All are ND

Parameter	Units	Maximum Daily Effluent Limitations	Range of Reported Concentrations
Zinc, Total Recoverable	µg/L	95.1	46 – 413
Bis(2-ethylhexyl)Phthalate	µg/L	11.8	All are ND
Phenolic Compounds	mg/L	1.0	All are ND
Acute Toxicity	% survival	[1]	95 – 100

ND = Non-detect

[1] The acute toxicity of the effluent shall be such that: (i) the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and (ii) no single test producing less than 70% survival.

D. Compliance Summary

A review of effluent monitoring data submitted during the existing permit term indicates the Discharger violated effluent limitations for pH, copper, lead, and zinc established in Order No. R4-2007-0039 for Discharge Point 003.

Date Occurred	Monitoring Period	Violation Type	Pollutant	Reported Value	Permit Limitations	Units
12/20/2010	4Q 2010	Instantaneous Maximum	pH	8.89	8.5	s.u.
12/20/2010	4Q 2010	Maximum Daily	Copper	34	5.8	µg/L
1/04/2011	1Q 2011	Maximum Daily	Copper	12	5.8	µg/L
3/25/2011	1Q 2011	Maximum Daily	Copper	14	5.8	µg/L
12/12/2011	4Q2011	Maximum Daily	Copper	43	5.8	µg/L
12/12/2011	4Q2011	Maximum Daily	Lead	18	15.7	µg/L
12/12/2011	4Q2011	Maximum Daily	zinc	320	95.1	µg/L
1/23/2012	1Q 2012	Maximum Daily	Copper	30	5.8	µg/L
1/23/2012	1Q 2012	Instantaneous Maximum	pH	8.7	8.5	s.u.
1/23/2012	1Q 2012	Maximum Daily	Zinc	200	95.1	µg/L

A Settlement Offer No R4-2012-0154, to participate in the Expedited Payment Program in the amount of $24,000.00 for the violations of the requirements contained in Order No. R4-2007-0039 during the period from 4th Quarter 2010 to 1st Quarter 2012 was issued to Ultramar on October 26, 2012, by this Regional Water Board. Ultramar accepted the offer and the Regional Water Board received the payment of $24,000.00 from Ultramar on January 3, 2013.

E. Planned Changes

There has been no indication of planned changes at the Facility.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to section 402 of the CWA and implementing regulations adopted by USEPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100 through 21177. In addition, this action is exempt from CEQA pursuant to 14 CCR 15301 (categorical exemption for existing facilities) because the action concerns the permitting of an existing facility and involves negligible or no expansion of the existing use.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Water Quality Control Board (Regional Water Board) adopted a Water Quality Control Plan for the Los Angeles Region (hereinafter Basin Plan) on June 13, 1994, that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to the Los Angeles Inner Harbor are as follows:

Table F-3. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001, 002, 003, and 004	Los Angeles Inner Harbor	Existing: Industrial Service Supply (IND); Navigation (NAV); Non-contact water recreation (REC-2); Preservation of rare, threatened, or endangered species (RARE); Commercial and sport fishing (COMM); and Marine habitat (MAR). Potential: Contact water recreation (REC-1) and Shellfish Harvesting (SHELL).

Requirements of this Order implement the Basin Plan.

Enclosed Bays and Estuaries Policy. The Water Quality Control Policy for the Enclosed Bays and Estuaries of California (Enclosed Bay and Estuaries Policy), adopted by the State Water Resources Control Board (State Water Board) as Resolution No. 95-84 on November 16, 1995, states that:

> *"It is the policy of the State Water Board that the discharge of municipal wastewaters and industrial process waters (exclusive of cooling water discharges) to enclosed bays and estuaries, other than the San Francisco Bay-Delta system, shall be phased out at the earliest practicable date. Exceptions to this provision may be granted by a Regional Water Board only when the Regional Water Board finds that the wastewater in question would consistently be treated and discharged in such a manner that it would enhance the quality of receiving waters above that which would occur in the absence of the discharge."*

The discharge from the Ultramar's Wilmington Marine Terminal, Berth 164 Facility is comprised primarily of storm water runoff and hydrostatic test water. Discharges to the Los Angeles Inner Harbor, Battery 1 would only occur during significant storm events and integrity testing of new or rehabilitated pipes and petroleum storage tanks. Since the discharge is not municipal wastewater or industrial process wastewater which are prohibited, this discharge is permitted. This Order also contains provisions necessary to protect all beneficial uses of the receiving water.

2. **Thermal Plan.** The State Water Board adopted a Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. Requirements of this Order implement the Thermal Plan. Additionally, a white paper developed by Regional Water Board staff entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region,* evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. A maximum effluent temperature limitation of 86°F was determined to be appropriate for protection of aquatic life and is included in this Order.

3. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995, and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

4. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The

SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

5. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes [40 C.F.R. § 131.21, 65 Fed. Reg. 24641 (April 27, 2000)]. Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

6. **Antidegradation Policy.** 40 CFR section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution No. 68-16.

7. **Anti-Backsliding Requirements.** Section 402(o) of the CWA establishes statutory language prohibiting the backsliding of effluent limits. Sections 402(o) of the CWA and federal regulations at title 40, Code Federal Regulations section 122.44(l) outlines specific exceptions to the general prohibition against establishment of less stringent effluent limitations.

   These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations included in this Order are at least as stringent as the effluent limitations in the previous Order with the exception of copper, and zinc at Discharge Points 001, 002, and 003 and for nickel, arsenic, mercury, silver, thallium, and bis(2-ethylhexyl)phthalate at Discharge point 003. This Fact Sheet includes a discussion of the basis for the new limits and the exceptions to the backsliding requirements that are applicable.

D. Impaired Water Bodies on CWA 303(d) List

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants,

the Regional Water Board plans to develop and adopt TMDLs that will specify wasteload allocations (WLAs) for point sources and load allocations (LAs) for non-point sources, as appropriate.

Certain receiving waters in the Los Angeles and Ventura Counties' watersheds do not fully support beneficial uses. These receiving waters are classified as impaired on the 2010 303(d) List and are scheduled for TMDL development. The USEPA approved the 2010 State Water Resources Control Board (State Water Board) California 303(d) List of impaired water bodies on November 12, 2010.

The Facility discharges to the Los Angeles Inner Harbor. The 2010 State Water Board California 303(d) List includes the classification of the Los Angeles-Long Beach Inner Harbor. The pollutants of concern include beach closures due to bacteria, benthic community effects, benzo(a)pyrene (3,4-benzopyrene-7-d), chrysene, copper, dichlorodiphenyltrichloroethane (DDT), polychlorinated biphenyls (PCBs), sediment toxicity, and zinc.

The following are summaries of the TMDLs for the Los Angeles/Long Beach Harbor Inner Harbor:

1. **Bacteria TMDL.** The Regional Water Board approved the Los Angeles Harbor Bacteria TMDL through Resolution 2004-011 on July 1, 2004. The State Water Board, Office of Administrative Law (OAL), and USEPA approved the TMDL on October 21, 2004, January 5, 2005, and March 1, 2005, respectively. The Bacteria TMDL became effective on March 10, 2005. The Bacteria TMDL addresses Inner Cabrillo Beach and the Main Ship Channel of the Los Angeles Inner Harbor. This Order includes bacteria limitations based on water quality standards (WQS) applicable to Los Angeles Inner Harbor. These WQS (and WQBELs) are identical to the WQS used to develop the Bacteria TMDL that is applicable to the Main Ship Channel located within the Los Angeles Inner Harbor

2. **Harbor Toxics TMDL.** The Regional Water Board adopted Resolution No. R11-008 on May 5, 2011, that amended the Basin Plan to incorporate the *TMDL for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbors Waters* (Harbor Toxics TMDL). The Harbor Toxic TMDL was approved by the State Water Board on February 7, 2012, the OAL on March 21, 2012, and the USEPA on March 23, 2012. The Harbor Toxics TMDL contains requirements applicable to this discharge. Therefore, this Order contains effluent limitations and monitoring requirements based on the TMDL.

   For Los Angeles Inner Harbor which is located within the Greater Los Angeles Harbor Waters, the Harbor Toxics TMDL included:

   a. Sediment interim concentration-based allocations (in mg/kg sediment) for copper, lead, zinc, DDT, PAHs, and PCBs (Attachment A to Resolution No. R11-008, p. 11).

b. Water column final concentration-based waste load allocations (WLAs) (ug/L) for copper, lead, zinc, 4,4'-DDT and total PCBs (Attachment A to Resolution No. R11-008, pp. 13-14).

c. Provisions for monitoring discharges and/or receiving waters during the TMDL's 20 year implementation schedule to determine attainment with waste load and load allocations as appropriate.

Implementation of the Harbor Toxics TMDL

The provisions of this Order implement and are consistent with the assumptions and requirements of all waste load allocations (WLAs) established in the Harbor Toxics TMDLs. This Order requires final WQBELs that are statistically-calculated based on salt water column final concentration-based WLAs (in µg/L, total metal) for copper (3.73), lead (8.52), zinc (85.6), 4,4'-DDT (0.00059), and total PCBs (0.00017) (referred to in this Order as CTR TMDL-based WLAs), converted from saltwater CTR criteria using CTR saltwater default translators, and relevant implementation provisions in section 1.4 of the State Implementation Policy. The TMDL includes provisions for a 20-year implementation schedule when warranted. However, this Order requires final WQBELs (referred to in this Order as CTR TMDL-based effluent limits). Historical data indicates that the Discharger will not be able to comply with the final limits. On April 11, 2013, the Discharger was contacted and advised to submit a request for interim limits and a compliance schedule. The Discharger submitted a request for a compliance schedule and interim limits dated May 6, 2013. On June 5, 2013, the Discharger submitted a letter withdrawing the request. Hence, this permit does not include interim limits for the contaminants targeted in the water column that are specified in the Harbor Toxics TMDL or a compliance schedule.

This Order also includes interim sediment allocations (monitoring thresholds) based on the TMDL's interim sediment allocations (in mg/kg sediment) for copper (154.1), lead (145.5), zinc (362.0), PAHs (90.3), DDT (0.341), and PCBs (2.107), and associated sediment monitoring requirements for the effluent. Regardless of these monitoring thresholds, the Discharger shall ensure that effluent concentrations and mass discharges do not exceed levels that can be attained by performance of the Facility's treatment technologies existing at the time of permit issuance, reissuance, or modification. The TMDL's interim sediment allocations were developed to ensure that the beneficial uses of the Los Angeles Inner Harbor are preserved.

The water column CTR TMDL-based WLAs for copper, lead, zinc, 4,4'-DDT, and total PCBs were developed to ensure that the beneficial uses of the Los Angeles Inner Harbor are preserved. However, no water column CTR TMDL-based WLAs were assigned for PAHs in the Greater Harbor Waters (includes Los Angeles/Long Beach Inner and Outer Harbors). Therefore, this Order sets performance goals for the PAHs; benzo(a)pyrene and chrysene, to ensure proper implementation of the TMDL's interim sediment allocations for this discharge. During each reporting period, if effluent monitoring results exceed both a TSS effluent limit and a CTR TMDL-based effluent limit or performance goal for copper, lead, zinc, 4,4-DDT, total

PCBs, benzo(a)pyrene, or chrysene, then the Discharger has not demonstrated attainment with the interim sediment allocations stipulated by the Harbor Toxics TMDL, Resolution No. R11-008, page 11, Item 3, and implementation of the effluent sediment monitoring program is required for that priority pollutant. Sediment monitoring of the effluent shall begin during the first discharge event following the effluent exceedances. An effluent sediment monitoring result at or below the interim sediment allocations (monitoring thresholds) in Table 10, page 29 of this Order, demonstrates attainment with the monitoring thresholds and additional sediment monitoring of the effluent is not required. A sediment monitoring result that exceeds the monitoring thresholds requires additional sediment monitoring of the effluent during discharge, but not more frequently than once per year, until the three-year average concentration for sediment monitoring results is at or below the interim sediment allocations (monitoring thresholds).

In an effort to accurately characterize the sediment discharged from the facility, the Discharger will be required to collect enough effluent to perform sediment monitoring at least once during the permit term. This monitoring is required only if the effluent monitoring does not trigger sediment monitoring during the five year permit term.

Performance Goals for Individual PAHs: Benzo(a)pyrene and Chrysene

The performance goals for benzo(a)pyrene and chrysene are intended to ensure that effluent concentrations and mass discharges do not exceed levels that can be attained by performance of the Facility's treatment technologies existing at the time of permit issuance, reissuance, or modification. These performance goals are not enforceable effluent limitations. They act as triggers to determine when sediment monitoring of the effluent is required for these compounds.

CTR human health criteria are not promulgated for total PAHs. Therefore, performance goals are based on CTR human health criteria for the individual PAHs, benzo(a)pyrene (0.049 µg/L) and chrysene (0.049 µg/L). Benzo(a)pyrene and chrysene are selected because the State's 2010 303(d) List classifies the Los Angeles/Long Beach Inner Harbor as impaired for these PAH compounds. See also the May 5, 2011, Final Staff Report for the Harbor Toxics TMDL (Staff Report).

Harbor Toxics TMDL Water Column, Sediment, and Fish Tissue Monitoring for Greater Los Angeles and Long Beach Harbor Waters Compliance Monitoring Program

The TMDL's implementation schedule to demonstrate attainment of WLAs and load allocations is a maximum of 20 years after the TMDL effective date for a Discharger who justifies the need for an associated time. During this period, the Discharger is required, either individually or with a collaborating group, to develop a monitoring and reporting plan (Monitoring Plan) and quality assurance project plan (QAPP) for the water column, sediment, and fish tissue in the Greater Los Angeles and Long Beach Harbor. These plans shall follow the "TMDL Element – Monitoring Plan" provisions in Attachment A to Resolution No. R11-008. The Monitoring Plan and

QAPP shall be submitted **20 months** after the effective date of the TMDL for public review and subsequent Executive Officer approval. The Discharger shall begin monitoring **6 months** after the Monitoring Plan and QAPP are approved by the Executive Officer, unless otherwise directed by the Executive Officer. The compliance monitoring program shall include water column, sediment, and fish tissue monitoring.

E. Other Plans, Policies and Regulations – Not Applicable

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: section 122.44(a) requires that permits include applicable technology-based limitations and standards; and section 122.44(d) requires that permits include WQBELs to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

Ultramar, Inc. operates a terminal that serves as a bulk storage and distribution facility for Ultramar's Wilmington Refinery. Wastewater discharged from the Facility is comprised of storm water runoff through Discharge Points 001, 002, and 003, and hydrostatic test water through Discharge Point 004.

Pollutants typically associated with oil storage facilities include but are not limited to benzene, ethylbenzene, toluene, xylene, phenolic compounds, total suspended solids (TSS), settleable solids, sulfides, total organic carbon (TOC), total petroleum hydrocarbons (TPHs), and oil and grease. Biochemical oxygen demand (BOD), temperature, pH, turbidity, settleable solids are pollutants of concern that are regulated in the Basin Plan as well as pollutants that were detected in the effluent from the Facility. In addition, some metals which are typically present at these facilities include arsenic, chromium (VI), total chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc because they may be components of materials stored in the tanks on-site. City-supplied water is used as hydrostatic test water; therefore, parameters that may be present in the discharge include chlorine and chlorine by-products and solids. Thus, these pollutants may be present in the discharge of storm water and hydrostatic test water and are considered pollutants of concern.

Effluent limitations for storm water discharges from Parcels 1 and 2, Parcel 3, and Parcels 4 and 5 through Discharge Points 001, 002, and 003, were established for oil and grease and phenolic compounds in the previous Order and continue to be applicable to the Facility. In this Order, effluent limitations for storm water discharges are established for oil and grease, phenolic compounds, BOD, TSS, temperature, pH, settleable solids, TPH, and turbidity based on Best Professional Judgment (BPJ) and water quality objectives contained in the Basin Plan. For Discharge Points 001, 002, 003, and 004, effluent limitations for copper, lead, zinc, 4,4-DDT, and total PCBs are based on the USEPA approved Harbor Toxics TMDL WLAs and calculated using the CTR-SIP procedures. For

arsenic, mercury, nickel, thallium, and bis(2-ethylhexyl)phthalate, the effluent limitations for Discharge Points 001 and 002 were based on Order No. R4-2007-0039.

Effluent limitations for hydrostatic test water discharges from Parcels 1 and 2, Parcel 3, and Parcels 4 and 5 in Order No. R4-2007-0039 were established for pH, temperature, TSS, turbidity, BOD, oil and grease, settleable solids, sulfides, chlorine residual, benzene, and metals. These constituents continue to be pollutants of concern.

Discharges of storm water from this type of facility and hydrostatic test water may also contribute to acute toxicity. Therefore, acute toxicity, an indicator of the presence of toxic pollutants, is also considered a pollutant of concern.

Discharges from the Facility are storm water and hydrostatic test water. There are three discharge points (Discharge Points 001, 002, and 003) for storm water and one discharge point (Discharge Point 004) for hydrostatic test water. During the existing permit term storm water discharges only occur (nine events) at Discharge Point 003. No storm water was discharged through Discharge Points 001 and 002 and no hydrostatic test water was discharged through Discharge Point 004 during the permit term. The methodology used to calculate the numerical limits included for toxics based on the WLAs from the applicable TMDLs is the method outlined in the SIP. Both a monthly average and daily maximum limits were calculated but the daily maximum limit only was included as an effluent limit in the permit. As per 40 CFR section 122.45(d), continuous discharges require both a daily maximum and a monthly average effluent limit. The discharge from the Ultramar's Wilmington Marine Terminal facility is not a continuous discharge. Since storm events in Southern California occur infrequently and historically the facility has less than one discharge per month, this permit only includes daily maximum effluent limits. In fact the discharges are infrequent and short term in nature. Chronic effects which are what the average monthly effluent limit is designed to protect are limited based on 4-day exposures after mixing at critical conditions. Since the average discharge duration is much less than the 4-day exposure and they occur only when the storage capacity onsite has been exceeded, only a daily maximum effluent limit is included. This approach is consistent with other similar permits adopted in the Los Angeles Region.

Generally, mass-based effluent limitations ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limitations. 40 CFR section 122.45(f)(1) requires that all permit limitations, standards or prohibitions be expressed in terms of mass units except under the following conditions: (1) for pH, temperature, radiation or other pollutants that cannot appropriately be expressed by mass limitations; (2) when applicable standards or limitations are expressed in terms of other units of measure; or (3) if in establishing technology-based permit limitations on a case-by-case basis, limitations based on mass are infeasible because the mass or pollutant cannot be related to a measure of production. The limitations, however, must ensure that dilution will not be used as a substitute for treatment. Therefore, in compliance with 40 CFR section 122.45(f), mass-based effluent limitations have also been established in the Order for conventional, non-conventional, and toxic pollutants.

A. Discharge Prohibitions

The discharge prohibitions are based on the requirements of the Basin Plan, State Water Board's plans and policies, the Water Code, and previous permit provisions, and are consistent with the requirements established for other discharges to Los Angeles Inner Harbor that are regulated by NPDES permit.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, Title 40 of the Code of Federal Regulations, require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Best Professional Judgment (BPJ) in accordance with 40 CFR section 125.3

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

a. Best practicable treatment control technology (BPT) represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the "cost reasonableness" of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.

d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and section 125.3 of Title 40 of the Code of Federal Regulations authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain

industrial categories and/or pollutants of concern. Where BPJ is used, the permit writer must consider specific factors outlined in 40 CFR section 125.3.

Technology-based effluent limits are intended to achieve a minimum level of treatment of pollutants for point source discharges.

2. Applicable Technology-Based Effluent Limitations

ELGS have not been developed for the discharges from the petroleum bulk storage and distribution facilities. Thus, no effluent limitations based on ELGS are prescribed in this permit.

The previous Order states that effluent limitations for pH, temperature, suspended solids, settleable solids, oil and grease, sulfides, chlorine residual, phenolic compounds (storm water), BOD, and turbidity (hydrostatic test water) are technology-based. These are parameters typically used to monitor treatment performance at similar facilities. Effluent limitations for BOD, TSS, settleable solids, turbidity were included for storm water discharges at Discharge Points 001, 002, and 003 because these pollutants were detected at Discharge Point 003 and are typical limitations prescribed in similar permits.

BPJ is the method used by permit writers to develop technology-based NPDES permit conditions on a case-by-case basis using all reasonably available and relevant data. BPJ limits are established in cases where effluent limitation guidelines are not available for a particular pollutant of concern. Authorization for BPJ limits is found under section 401(a)(1) of the Clean Water Act and under section 125.3. Effluent limitations for pH, TSS, turbidity, BOD, oil and grease, settleable solids, sulfides, phenolic compounds, and chlorine residual for discharges of storm water and hydrostatic test water continue to be appropriate for this facility. Therefore, pursuant to State and federal antibacksliding regulations, Order No. R4-2013-0133 includes effluent limitations for pH, TSS, turbidity, BOD, oil and grease, settleable solids, sulfides, phenolic compounds, and chlorine residual as technology-based effluent limitations based on BPJ in accordance with section 125.3. The limitations for these pollutants were determined on a case-by-case basis and are similar to those established for similar facilities within the Los Angeles Region.

The Facility is a bulk storage and distribution facility that receives and ships intermediates, feedstock, and refined products by pipeline, marine vessels and trucks. There are 15 petroleum storage tanks and 4 slop oil storage tanks in the Facility. Petroleum compounds may be transported by storm water runoff from the facility, and as mentioned above, total petroleum hydrocarbons (TPH) is a pollutant of concern. TPH was detected (concentrations of 0.34 µg/L – 0.38 µg/L) in storm water samples collected at Discharge Point 003 during the permit term. Therefore, this Order establishes a new effluent limitation based on BPJ for total petroleum hydrocarbons equal to 100 µg/L. This limitation has been achievable through source control and treatment at facilities engaged in various petroleum operations and is consistent with permits for similar facilities within the Los Angeles Region.

Order No. R4-2007-0039 required the Discharger to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). This Order will require the Discharger to update and continue to implement the SWPPP (Attachment G). The revised SWPPP will reflect current operations, treatment activities, and staff responsible for implementing and supporting the SWPPP. The SWPPP will outline site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into the storm drain.

This Order also requires that the Discharger update and continue to implement a Best Management Practices Plan (BMPP). 40 CFR section 122.44(k) requires that permits include best management practices when reasonably necessary to achieve the effluent limitations and standards or to carry out the purpose and intent of the CWA. The purpose of the BMPP is to establish site-specific procedures that minimize the potential to discharge hazardous waste/materials and other contaminates to surface waters.

The BMPP shall be consistent with the general guidance contained in the USEPA *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA 833-B-93-004). The BMPP shall cover all areas of the Facility and shall include an updated drainage map for the Facility. Further, the BMPP shall identify on a map of appropriate scale the areas that generate effluent and runoff at the permitted discharge points; describe the activities in each area, the potential for contamination of the effluent and storm water. The BMPP shall also identify the responsible individuals for the implementation of the BMPP by name, job title, job duties, and phone number.

An up-to-date SWPPP shall be submitted to the Regional Water Board within 90 days of the effective date of this Order. The SWPPP shall be reviewed annually and at the same time each year. Revisions of the SWPPP shall be submitted to the Regional Water Board within 30 days of any change.

This Order also requires the Discharger to update the Spill Prevention, Control and Countermeasure (SPCC) Plan. The updated SPCC Plan is required in order to report on preventive and contingency (cleanup) procedures for controlling accidental discharges and for minimizing the adverse effects of such events.

The combination of the SWPPP, BMPP, SPCC Plan and existing Order limitations reflecting BPJ will serve as the equivalent of technology-based effluent limitations, in the absence of established ELGs, in order to carry out the purpose and intent of the CWA.

A summary of the numeric technology-based effluent limitations is provided in Table F-4.

Table F-4. Summary of Technology-based Effluent Limitations - Discharge Points 001 through 004

Parameter	Units	Effluent Limitations
		Maximum Daily
BOD_5 @ 20°C	mg/L	30
Oil and Grease	mg/L	15
Total Suspended Solids (TSS)	mg/L	75
Turbidity	NTU	75
Settleable Solids	ml/l	0.3
Total Petroleum Hydrocarbons (TPH)[1]	µg/L	100
Phenolic Compounds[2]	mg/L	1.0
Chlorine, Total Residual[3]	mg/L	0.1
Sulfides[2]	mg/L	1.0

1. TPH is applicable to Discharge Point 001, 002, and 003.

2. Phenolic compounds include the sum of the following individual chlorinated and non-chlorinated phenolic compounds: 2-chlorophenol; 2-nitrophenol; phenol; 2,4-dimethylphenol; 2,4-dichlorophenol; 2,4,6-trichlorophenol; 4-chloro-3-methylphenol; 2,4-dinitrophenol; 2-methyl-4,6-dinitrophenol; pentachlorophenol; and 4-nitrophenol.

3. This limit is applicable only to Discharge Point 004.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and 40 CFR section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

40 CFR section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 CFR section 122.44(d)(1)(vi). Permit WQBELs must also be consistent with TMDL WLAs approved by USEPA.

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and

criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

The specific procedures for determining reasonable potential and, if necessary, for calculating WQBELs are contained in the Technical Support Document (TSD) for storm water discharges and in the SIP for non-storm water discharges (i.e., hydrostatic test water). However, the Section 3.3.8 Effluent Characterization of Specific Chemicals, Step 4, in the first full paragraph on P. 64 of the TSD reads "The statistical approach shown in Box 3-2 or an analogous approach developed by a regulatory authority can be used to determine the reasonable potential". The Regional Water Board has determined that the procedures for determining reasonable potential and calculating WQBELs contained in the SIP for non-storm water discharges may be used to evaluate reasonable potential and calculate WQBELs for storm water discharges as well. Hence, in this Order, the Regional Water Board has used the SIP methodology to evaluate reasonable potential for storm water discharges through Discharge Points 001, 002, and 003 and for hydrostatic test water discharges through Discharge Point 004.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

As noted in Section II of the Limitations and Discharge Requirements, the Regional Water Board adopted a Basin Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The beneficial uses applicable to the Los Angeles Inner Harbor, are summarized in Section III.C.1 of this Fact Sheet. The Basin Plan includes both narrative and numeric water quality objectives applicable to the receiving water.

Priority pollutant water quality criteria in the CTR are applicable to Los Angeles Inner Harbor. The CTR contains both saltwater and freshwater criteria. Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, the following apply, in accordance with 40 CFR section 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time. The CTR criteria for saltwater or human health for consumption of organisms, whichever is more stringent, are used to determine the need for water quality-based effluent limitations in this Order to protect the beneficial uses of Los Angeles Inner Harbor.

Table F-5 summarizes the applicable water quality criteria/objective for priority pollutants reported in detectable concentrations in the storm water discharges through Discharge Point 003 or receiving water evaluated based on monitoring data submitted to the Regional Water Board. These criteria were used in conducting the RPA for this Order. Since there have been no discharges through Discharge Points 001, 002, and 004, and there were no available data, no RPA was conducted for these Discharge Points.

Table F-5. Applicable Water Quality Criteria

CTR No.	Constituent	Selected Criteria	CTR/NTR Water Quality Criteria					
			Saltwater		Freshwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Chronic	Water & Organisms	Organisms only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
1	Antimony	4,300	--	--	N/A			4,300
2	Arsenic	36	69	36				--
3	Beryllium	NC	--	--				--
5a	Chromium, III	NC	--	--				--
5b	Chromium, VI	50.35	1,107.75	50.35				--
6	Copper	3.73	5.78	3.73				--
7	Lead	8.52	220.82	8.52				--
9	Nickel	8.28	74.75	8.28				4,600
10	Selenium	71.14	290.58	71.14				--
13	Zinc	85.62	95.14	85.62				--
19	Benzene	71	--	--				71
39	Toluene	200,000	--	--				200,000
53	Pentachlorophenol	7.9	13	7.9				8.2
62	Benzo(b)Fluoranthene	0.049	--	--				0.049
70	Butylbenzyl Phthalate	5,200	--	--				5,200
73	Chrysene	0.049	--	--				0.049
75	1,2-Dichlorobenzene	17,000	--	--				17,000
79	Diethyl Phthalate	120,000	--	--				120,000
81	Di-n-Butyl Phthalate	12,000	--	--				12,000
86	Fluoranthene	370	--	--				370
87	Fluorene	14,000	--	--				14,000
94	Naphthalene	NC	--	--				--
99	Phenanthrene	NC	--	--				--
100	Pyrene	11,000	--	--				11,000

"N/A" indicates the receiving water body is not characterized as freshwater, nor are the water quality criteria for the protection of human health for the consumption of water and organisms applicable.
"NC" indicates there are no criteria that are applicable to that particular pollutant.

On May 5, 2011, the Regional Water Board adopted Resolution No. R11-008 that amended the Basin Plan to incorporate the *TMDL for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbors Waters* (Harbor Toxics TMDL). The Harbor Toxic TMDL was approved by the State Water Board on February 7, 2012, the OAL on March 21, 2012, and the USEPA on March 23, 2012. The Harbor Toxics TMDL assigned concentration-based waste load allocations (WLAs) to any future minor NPDES permits or enrollees under a general NPDES permits. The TMDL states, "The allocations are set equal to the saltwater targets for metals and equal to the human health targets for the organic compounds in CTR. The averaging period for the concentration-based WLAs shall be consistent with that

specified in the regulation establishing the criterion or objective or relevant implementation guidance published by the establishing agency."

Table F-6 summarizes the applicable WLAs for copper, lead, zinc, 4,4'-DDT and total PCBs contained in the Harbor Toxics TMDL. These WLAs are applicable to Discharge Point Nos. 001, 002, 003, and 004 discharging to Los Angeles Inner Harbor.

Table F-6. Harbor Toxics TMDL WLAs Applicable to Discharge Points. 001, 002, 003, and 004

Constituents	Units	WLA
Copper, Total Recoverable[1]	µg/L	3.73
Lead, Total Recoverable[1]	µg/L	8.52
Zinc, Total Recoverable[1]	µg/L	85.6
4,4'-DDT	µg/L	0.00059
Total PCBs	µg/L	0.00017
Total PAHs[2]	µg/L	--

1. WLAs for metals are converted from saltwater dissolved CTR criteria using CTR saltwater default translators.
2. CTR human health criteria were not established for total PAHs. Therefore, the CTR criterion for individual PAHs of 0.049 µg/L is applied individually to benzo(a)anthracene, benzo(a)pyrene, and chrysene. Benzo(a)pyrene and chrysene are selected to be included in this permit because the State's 2010 303(d) List classifies the Los Angeles/Long Beach Inner Harbor as impaired for these PAH compounds.

This permit implements the applicable WLAs as required in the TMDL. The WLAs are converted into effluent limitations in this permit by applying the CTR-SIP procedures.

3. Determining the Need for WQBELs

In accordance with Section 1.3 of the SIP, the Regional Water Board conducts a reasonable potential analysis (RPA) for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Water Board analyzes effluent and receiving water data and identifies the maximum observed effluent concentration (MEC) and maximum background concentration (B) in the receiving water for each constituent. To determine reasonable potential, the MEC and the B are then compared with the applicable water quality objectives (C) outlined in the CTR, NTR, as well as the Basin Plan. For all pollutants that have a reasonable potential to cause or contribute to an excursion above a state water quality standard, numeric WQBELs are required. The RPA considers water quality criteria from the CTR and NTR, and when applicable, water quality objectives specified in the Basin Plan. To conduct the RPA, the Regional Water Board identifies the MEC and maximum background concentration in the receiving water for each constituent, based on data provided by the Discharger.

Section 1.3 of the SIP provides the procedures for determining reasonable potential to exceed applicable water quality criteria and objectives. The SIP specifies three triggers to complete a RPA:

1) Trigger 1 – If the MEC ≥ C, a limit is needed.

2) Trigger 2 – If the background concentration (B) > C and the pollutant is detected in the effluent, a limit is needed.

3) Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, etc. indicates that a WQBEL is required.

Sufficient effluent and receiving water data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Water Board to conduct the RPA. Upon review of the data, and if the Regional Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

There have been no discharges from the Ultramar Facility through Discharge Points 001, 002, and 004 to surface waters during this permit term, and insufficient data are available to characterize potential discharges from the Facility. Therefore, the RPA was not performed for Discharge Points 001, 002, and 004. Monitoring requirements for CTR parameters have been carried over to provide sufficient data to perform a RPA. Based on BPJ in accordance with 40 CFR section 125.3 the effluent limitations from Order No. R4-2007-0039 for arsenic, copper, lead, mercury, nickel, silver (Discharge Point 001 only), thallium, zinc, and bis(2-ethylhexyl)phthalate have been included in this Order for Discharge Points 001, 002, and 004 (copper only). This Order includes final WQBELs for copper, lead, zinc, 4-4'-DDTs and total PCBs based on the TMDL WLAs approved by USEPA for Discharge Points 001, 002, 003, and 004. Table F-7 summarizes the RPA for Discharge Point 003.

Table F-7. Summary of Reasonable Potential Analysis – Discharge Point 003

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	Harbor Toxics TMDL WLAs	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L			
1	Antimony	4,300	0.77	ND	No	No	MEC<C & B is ND
2	Arsenic	36	5.3	26.8	No	No	MEC<C & B<C
3	Beryllium	9.36	ND	0.645	No	No	B<C, MEC is ND
5a	Chromium, III	No Criteria	4.7	ND	No	No	No Criteria
5b	Chromium, VI	50.35	0.76	2.4	No	No	MEC<C & B<C

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	Harbor Toxics TMDL WLAs	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L			
6	Copper	3.73	45.3	22	Yes	Yes	MEC>=C TMDL
7	Lead	8.52	18	1.73	Yes	Yes	MEC>=C TMDL
9	Nickel	8.28	5.9	11.4	No	Yes	B>=C, MEC is Detected
10	Selenium	71.4	0.7	22.3	No	No	MEC<C & B<C
13	Zinc	85.62	413	95	Yes	Yes	MEC>=C TMDL
19	Benzene	71	1.2	0.3	No	No	MEC<C & B<C
39	Toluene	200,000	1.2	ND	No	No	MEC<C & B is ND
53	Pentachlorophenol	7.9	ND	0.43	No	No	B<C, MEC is ND
61	Benzo(a)Pyrene	0.049	ND	ND	Yes	No	Performance Goal
62	Benzo(b)Fluoranthene	0.049	ND	0.056	No	No	B<C, MEC is ND
70	Butylbenzyl Phthalate	5,200	ND	1.2	No	No	B<C, MEC is ND
73	Chrysene	0.049	ND	0.13	Yes	No	B<C, MEC is ND Performance Goal
75	1,2-Dichlorobenzene	17,000	ND	0.11	No	No	B<C, MEC is ND
79	Diethyl Phthalate	120,000	ND	0.4	No	No	B<C, MEC is ND
81	Di-n-Butyl Phthalate	12,000	ND	0.47	No	No	B<C, MEC is ND
86	Fluoranthene	370	ND	0.66	No	No	B<C, MEC is ND
87	Fluorene	14,000	ND	0.076	No	No	B<C, MEC is ND
94	Naphthalene	No Criteria	ND	4	No	No	B<C, MEC is ND
99	Phenanthrene	No Criteria	ND	0.3	No	No	B<C, MEC is ND
100	Pyrene	11,000	ND	0.2	No	No	B<C, MEC is ND
118	4,4'-DDT	0.00059	ND	ND	Yes	Yes	TMDL
119-125	Total PCBs	0.00017	ND	ND	Yes	Yes	TMDL

4. WQBEL Calculations

a. If a reasonable potential exists to exceed applicable water quality criteria or objectives, then a WQBEL must be established in accordance with one or more of the three procedures contained in Section 1.4 of the SIP. These procedures include:

i. If applicable and available, use of the wasteload allocation (WLA) established as part of a total maximum daily load (TMDL).

ii. Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).

iii. Where sufficient effluent and receiving water data exist, use of a dynamic model, which has been approved by the Regional Water Board.

b. WQBELs for nickel has been developed for discharges through Discharge Point 003. The WQBEL is based on monitoring results and following the procedure based on the steady-state model, available in Section 1.4 of the SIP. WQBELs that are calculated following procedures in Section 1.4 of the SIP are prescribed for discharges from the Facility for copper, lead, zinc, 4,4-DDT, and total PCBs are based on the Harbor Toxics TMDL WLAs.

c. Since no discharges through Discharge Points 001, 002, and 004 occurred during the term of Order No. R4-2007-0039, no RPA was performed.

d. Since many of the streams in the Region have minimal upstream flows, mixing zones and dilution credits are usually not appropriate. Therefore, in this Order, no dilution credit is included. However, in accordance with the reopener provision in Section VI.C.1.e, this Order may be reopened upon the submission by the Discharger of adequate information to establish appropriate dilution credits or a mixing zone, as determined by the Regional Water Board.

e. WQBELs Calculation Example

Using nickel from Discharge Point 003 as an example, the following demonstrates how WQBELs were established for this Order. The tables in Attachment J summarize the development and calculation of all WQBELs for this Order using the process described below.

Concentration-Based Effluent Limitations

A set of AMEL and MDEL values are calculated separately, one set for the protection of aquatic life and the other for the protection of human health. The AMEL and MDEL limitations for aquatic life and human health are compared, and the most restrictive AMEL and the most restrictive MDEL are selected as the WQBEL.

Calculation of aquatic life AMEL and MDEL:

Step 1: For each constituent requiring an effluent limit, identify the applicable water quality criteria or objective. For each criteria, determine the effluent concentration allowance (ECA) using the following steady state equation:

ECA = C + D(C-B) when C > B, and
ECA = C when C < = B,

Where C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators. In this Order, there are no hardness-dependent criteria; however, a pH of 7.4 s.u. was used for pH-dependent criteria.

D = The dilution credit, and
B = The ambient background concentration

As discussed above, for this Order, dilution was not allowed; therefore:

ECA = C

For nickel, the applicable water quality criteria are:

ECA_{acute}= 74.75 µg/L
$ECA_{chronic}$= 8.28 µg/L

Step 2: For each ECA based on aquatic life criterion/objective, determine the long-term average discharge condition (LTA) by multiplying the ECA by a factor (multiplier). The multiplier is a statistically based factor that adjusts the ECA to account for effluent variability. The value of the multiplier varies depending on the coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. Table 1 of the SIP provides pre-calculated values for the multipliers based on the value of the CV. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 3 of the SIP and will not be repeated here.

$LTA_{acute} = ECA_{acute} \times Multiplier_{acute\ 99}$

$LTA_{chronic} = ECA_{chronic} \times Multiplier_{chronic\ 99}$

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6.

For nickel, the following data was used to develop the acute and chronic LTA using equations provided in Section 1.4, Step 3 of the SIP (Table 1 of the SIP also provides this data up to three decimals):

No. of Samples	CV	ECA Multiplier$_{acute\ 99}$	ECA Multiplier$_{chronic\ 99}$
4	0.60	0.32	0.53

LTA_{acute} = 74.75 µg/L x 0.32 = 24.00 µg/L

$LTA_{chronic}$ = 8.28 µg/L x 0.53 = 4.37 µg/L

Step 3: Select the most limiting (lowest) of the LTA.

LTA = most limiting of LTA_{acute} or $LTA_{chronic}$

For nickel, the most limiting LTA was the $LTA_{chronic}$

$$LTA = 4.37 \mu g/L$$

Step 4: Calculate the WQBELs by multiplying the LTA by a factor (multiplier). WQBELs are expressed as Average Monthly Effluent Limitations (AMEL) and Maximum Daily Effluent Limitation (MDEL). The multiplier is a statistically based factor that adjusts the LTA for the averaging periods and exceedance frequencies of the criteria/objectives and the effluent limitations. The value of the multiplier varies depending on the probability basis, the coefficient of variation (CV) of the data set, the number of samples (for AMEL) and whether it is a monthly or daily limit. Table 2 of the SIP provides pre-calculated values for the multipliers based on the value of the CV and the number of samples. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 5 of the SIP and will not be repeated here.

$$AMEL_{aquatic\ life} = LTA \times AMEL_{multiplier\ 95}$$

$$MDEL_{aquatic\ life} = LTA \times MDEL_{multiplier\ 99}$$

AMEL multipliers are based on a 95^{th} percentile occurrence probability, and the MDEL multipliers are based on the 99^{th} percentile occurrence probability. If the number of samples is less than four (4), the default number of samples to be used is four (4).

For nickel, the following data were used to develop the AMEL and MDEL for aquatic life using equations provided in Section 1.4, Step 5 of the SIP (Table 2 of the SIP also provides this data up to two decimals):

No. of Samples Per Month	CV	$Multiplier_{MDEL\ 99}$	$Multiplier_{AMEL\ 95}$
4	0.60	3.11	1.55

$$AMEL_{aquatic\ life} = 4.37 \mu g/L \times 1.55 = 6.78 \mu g/L$$

$$MDEL_{aquatic\ life} = 4.37 \mu g/L \times 3.11 = 13.61 \mu g/L$$

Calculation of human health AMEL and MDEL:

Step 5: For the ECA based on human health, set the AMEL equal to the $ECA_{human\ health}$

$$AMEL_{human\ health} = ECA_{human\ health}$$

For nickel:

$$ECA_{human\ health} = 4{,}600 \mu g/L$$

Step 6: Calculate the MDEL for human health by multiplying the AMEL by the ratio of the $Multiplier_{MDEL}$ to the $Multiplier_{AMEL}$. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples.

$$MDEL_{human\ health} = AMEL_{human\ health} \times (Multiplier_{MDEL} / Multiplier_{AMEL})$$

For nickel, following data were used to develop the $MDEL_{human\ health}$:

No. of Samples Per Month	CV	$Multiplier_{MDEL\ 99}$	$Multiplier_{AMEL\ 95}$	Ratio
4	0.6	3.11	1.55	2.01

$MDEL_{human\ health}$ = 4,600 µg/L x 2.01 = 9,228 µg/L

Step 7: Select the lower of the AMEL and MDEL based on aquatic life and human health as the WQBEL for the Order.

For nickel:

$AMEL_{aquatic\ life}$	$MDEL_{aquatic\ life}$	$AMEL_{human\ health}$	$MDEL_{human\ health}$
6.8 µg/L	13.6 µg/L	4,600 µg/L	9,228 µg/L

The lowest (most restrictive) of the aquatic life and human health effluent limits for nickel are based on aquatic toxicity and were incorporated into this Order for discharges of stormwater.

For copper, lead, and zinc, there are no human health (Consumption of Organism Only) criteria, and WLAs have been established based on the Harbor Toxics TMDL, therefore the established effluent limitations are based on aquatic life criteria used for the Harbor Toxics TMDL WLAs. For 4-4'DDT and total PCBs, there are no aquatic life criteria and WLAs have been established based on the Harbor Toxics TMDL, therefore the established effluent limitations are based on human health criteria used for the Harbor Toxics TMDL WLAs. These limitations are expected to be protective of the beneficial uses.

5. WQBELs based on Basin Plan Objectives

The Basin Plan Objectives applicable to the Discharger are identified in Table F-8. These objectives were evaluated with respect to effluent monitoring data and Facility operations.

Table F-8. Applicable Basin Plan Numeric Water Quality Objectives

Constituent	Units	Water Quality Objectives
pH	s.u.	The pH of bays and estuaries shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.2 units from natural conditions as a result of waste discharge.

Constituent	Units	Water Quality Objectives
Bacteria	MPN/ 100ml	Marine Waters Designated for Water Contact Recreation (REC-1) Geometric Mean Limits 1. Total coliform density shall not exceed 1,000/100 ml. 2. Fecal coliform density shall not exceed 200/100 ml. 3. Enterococcus density shall not exceed 35/100 ml. Single Sample Limits 1. Total coliform density shall not exceed 10,000/100 ml. 2. Fecal coliform density shall not exceed 400/100 ml. 3. Enterococcus density shall not exceed 104/100 ml. 4. Total coliform density shall not exceed 1,000/100 ml, if the ratio of fecal-to-total coliform exceeds 0.1.
Dissolved Oxygen	mg/L	For all waters, the mean annual dissolved oxygen concentration shall be greater than 7 mg/L, and no single determination shall be less than 5.0 mg/L, except when natural conditions cause lesser concentrations.
Turbidity	NTU	Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU increases shall not exceed 10%.

a. pH. This Order includes effluent and receiving water limitations for pH to ensure compliance with Basin Plan Objectives for pH.

b. Ammonia. No effluent or receiving water data were available to evaluate the discharge with respect to ammonia concentrations in the receiving water. This Order carries over monitoring requirements for ammonia and includes receiving water limitations to ensure compliance with Basin Plan Objectives for ammonia.

c. Bacteria. The Discharger does not engage in activities that are likely to contribute bacteria to the effluent. However, the Los Angeles-Long Beach Inner Harbor is identified on the 2010 303(d) list as impaired for bacteria. In addition, a Bacteria TMDL has been developed for the Inner Cabrillo Beach and the Main Ship Channel of the Los Angeles Inner Harbor. Discharges from the Facility enter Los Angeles Inner Harbor but are not directly discharged to the Main Channel. Therefore, this Order includes bacteria limitations based on water quality standards (WQS) from the Basin Plan which are applicable to Los Angeles Inner Harbor. These WQS (and WQBELs) are identical to the WQS used to develop the Bacteria TMDL that is applicable to the Main Ship Channel located within the Los Angeles Inner Harbor.

d. Dissolved Oxygen. No effluent or receiving water data were available to evaluate the discharge with respect to dissolved oxygen concentrations in the effluent or receiving water. This Order applies the water quality objective for dissolved oxygen as a receiving water limitation to ensure compliance with Basin Plan Objectives for dissolved oxygen. This Order requires continued monitoring for dissolved oxygen in the receiving water.

e. Turbidity. This Order applies the water quality objective for turbidity as a receiving water limitation in addition to the technology-based effluent

limitation. At times the WQO may be more stringent than the numeric technology-based effluent limitation.

f. **Temperature.** The Basin Plan lists temperature requirements for the receiving waters and references the Thermal Plan. Based on the requirements of the Thermal Plan and a white paper developed by Regional Water Board staff entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region*, a maximum effluent temperature limitation of 86°F is included in the permit. The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel.

6. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of timeand may measure mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses by aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. The existing Order contains acute toxicity limitations and monitoring requirements in accordance with the Basin Plan, in which the acute toxicity objective for discharges dictates that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival. Consistent with Basin Plan requirements, this Order carries over the acute toxicity limitations and monitoring requirements from the previous Order. In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. In addition, the Order establishes thresholds that when exceeded requires the Discharger to conduct accelerated toxicity testing and/or conduct toxicity reduction evaluation (TRE) and toxicity identification evaluation (TIE) studies.

7. Final WQBELs

Table F-9. Summary of WQBELs – Discharge Point 001

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	S.U.	—	—	6.5	8.5
Temperature	°F	—	—	—	86
Acute Toxicity	% Survival	[1]			
Arsenic, Total Recoverable[5]	µg/L	—	65.6	—	—
	lbs/day[2]	—	0.3	—	—
Copper, Total Recoverable[3,4]	µg/L	—	6.1	—	—
	lbs/day[2]	—	0.02	—	—
Lead, Total Recoverable[4]	µg/L	—	14	—	—
	lbs/day[2]	—	0.06	—	—
Mercury, Total Recoverable[5]	µg/L	—	0.10	—	—
	lbs/day[2]	—	0.0004	—	—
Nickel, Total Recoverable[5]	µg/L	—	12.6	—	—
	lbs/day[2]	—	0.05	—	—
Silver, Total Recoverable[5]	µg/L	—	2.2	—	—
	lbs/day[2]	—	0.01	—	—
Thallium, Total Recoverable[5]	µg/L	—	12.6	—	—
	lbs/day[2]	—	0.05	—	—
Zinc, Total Recoverable[3,4]	µg/L	—	141	—	—
	lbs/day[2]	—	0.6	—	—
4,4'-DDT[4]	µg/L	—	0.001	—	—
	lbs/day[2]	—	4.0E-06	—	—
Total PCBs[4]	µg/L	—	0.0003	—	—
	lbs/day[2]	—	1.2E-06	—	—
Bis(2-ethylhexyl)Phthalate[5]	µg/L	—	11.8	—	—
	lbs/day[2]	—	0.05	—	—

For Footnotes, see page 34.

Table F-10. Summary of WQBELs – Discharge Point 002

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	S.U.	—	—	6.5	8.5
Temperature	°F	—	—	—	86
Acute Toxicity	% Survival	[1]			
Arsenic, Total Recoverable[5]	µg/L	—	65.1	—	—
	lbs/day[2]	—	0.3	—	—
Copper, Total Recoverable[3,4]	µg/L	—	6.1	—	—
	lbs/day[2]	—	0.02	—	—